

# ABSTRACT

It is an object of the present invention to obtain a write condition detection index with improved stability for a variation in temperature and with improved detection sensitivity for a write condition so that the index can more appropriately follow a variation in write condition. A write pit reflected light level  $S_p$  and a write space reflected light level  $S_s$  are detected. On the basis of these detected values  $S_p$  and  $S_s$  and write power  $Pw1$  with which laser beams from a semiconductor laser element exit an objective of an optical head during a write, an index  $R_m$  that is indicative of a write condition for an optical disk is determined using the equation  $R_m = S_p/S_s/(Pw1)^2$ . Then, on the basis of the write condition detection index  $R_m$ , the write power  $Pw1$  is controlled.